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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,425	03/17/2004	Bonnie L. Bassler	4555-128.1.1 US	3998
26817 7590 08/08/2008 MATHEWS, SHEPHERD, MCKAY, & BRUNEAU, P.A. 29 THANET ROAD, SUITE 201 PRINCETON, NJ 08540				
EXAMINER JOIKE, MICHELE K				
ART UNIT		PAPER NUMBER		
1636				
MAIL DATE		DELIVERY MODE		
08/08/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/802,425

**Applicant(s)**

BASSLER ET AL.

**Examiner**

MICHELE K. JOIKE

**Art Unit**

1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36, 39-48, 99 and 100 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-35, 42-48 and 99-100 is/are allowed.
- 6) ☒ Claim(s) 1, 3-9, 36, 39 and 40 is/are rejected.
- 7) ☒ Claim(s) 2 and 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Receipt is acknowledged of a reply to the previous Office Action, filed June 30, 2008. Claims 1-36 and 39-48, 99 and 100 are pending in the instant application and are examined. Any rejection of record in the previous Office Action, mailed February 6, 2008 that is not addressed in this action has been withdrawn. Because this Office Action introduces new rejections other than those set forth in the previous Office Action, and are not necessitated by amendment, this Office Action is **Non-Final**.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-9, 36, 39 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuo et al. (J. Bacteriology, Feb 1996, Vol. 178(4), pp. 971-975.)

Kuo et al. teach a method of identifying an autoinducer analog that regulates activity of the autoinducer, the method comprising the steps of:

a) contacting a bacterial cell (mutant strain of *Vibrio fischeri*, mutant strain only defective in *ainS* (see abstract, lines 9-10)) with an autoinducer analog, AI-2 exogenous source of autoinducer AI-2, (see abstract, line 1);

b) comparing the amount of light produce by the bacterial cell in the presence of an autoinducer (parent strain able to produced both AI-1 and AI-2) with the amount of

light produced in the presence of the autoinducer analog (AI-2, is an analog of AI-1, the two molecules competitively interact with each other, see page 975, column 1, paragraph at top of the page, last sentence);

the mutant strain produces accelerated luminescence induction as compared to the parent strain upon contact with the exogenous source AI-2 analog, wherein a change in the production of light is indicative of an autoinducer analog that regulates activity of an autoinducer.

Note the control strain MJ-100, produced endogenous autoinducers, being both lux+/ainS+, AI-1 being an analog of AI-2; and AI-2 being an analog of AI-1 (see Figure 1). Because compound and biomarker can be any molecule, analog is being interpreted to constitute a compound and/or biomarker (p. 15 of the specification). The luminescence of the strain was indicative of the presence of autoinducer analogs. The assay was carried out in vitro (under laboratory conditions, (see Figure 2, page 973, column 1). The assay was carried out in vivo (within a bacterial cell, through detection of luminescence induction, see Figure 1, page 973 and Figure 3, page 973, column 2, top of the page). Wherein the regulation is by inhibition of autoinducer activity (see page 973, column 2, paragraph 2, last sentence; and paragraph 3, last sentence; also see abstract, last three lines).

The reference anticipates the instant invention; therefore, the instant invention is unpatentable.

***Allowable Subject Matter***

Claims 2 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10-35, 42-48 and 99-100 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE K. JOIKE whose telephone number is (571)272-5915. The examiner can normally be reached on M-F, 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Weitach can be reached on 571-272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1636

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NANCY VOGEL/  
Primary Examiner, Art Unit 1636

Michele K Joiike, Ph.D.  
Examiner  
Art Unit 1636